

## Technical Report No. 4

25X1

a. Current Status of Work

The following areas have been worked on during the period starting April 24, 1965.

1. Target fabrication. The equipment to produce the final targets have been designed and built. The fabrication of the target has been started.
2. During this reporting period we received a complete set of filters. The first set is mounted in the holders and we have begun our evaluation to determine the best contrast values for these filters.
3. The additive method, as described in Report No. 3, was more fully studied. Our conclusion is that, for the purpose of checking viewers, this method is preferable. There is no need to change the input platen of the equipment, and the precision obtainable is about the same as in the originally-proposed method. The best way to implement this method seems to be to use targets with a visibility  $V_T = V_O = 1$ . (See Report No. 3, Page 8, Equation 14.) Equation (15) then becomes

$$\tau = \frac{I_1'}{I_0'} \quad (1)$$

With a simple photocell arrangement we can thus determine  $\tau$ .

The method to be pursued will be discussed with your representative on July 8, 1965.

b. Problem Areas Encountered

No problem areas were encountered.

c. Projected Work for Next Monthly Period

The evaluation of the target and filter will be continued. Target fabrication will continue. After the decision has been made regarding the method to be used, the design of the final equipment will be started.

d. Status of Funds Expended

From the period of April 24, 1965 to June 25, 1965 the

[redacted] This figure includes direct labor, materials, overhead and G. and A., and fixed fee.

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e. Documentation of any verbal commitments and/or agreements with the Technical Representatives of the Contracting Officer during the reporting period

There have been no verbal commitments during this reporting period.

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Submitted by

[redacted]

30 June 1965

☐ SECRET

Approved

Release 2002/11/15

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# CONTRACT INSPECTION REPORT

CONTRACT NO.

TASK NO.

25X1

TO:

ENGINEERING SECTION/CB/PD/OL

25X1A

DATE

31 March 1965

INSPECTION REPORT NO. (If final, so state)

2

ESTIMATED COMPLETION DATE

15 December 1965

NAME OF CONTRACTOR

TYPE OF COMMODITY OR SERVICE

Line Wave Test Equipment

THE CONTRACTOR IS ON SCHEDULE

☒ YES

☐ NO

PER CENT OF WORK COMPLETED -

20%

PER CENT OF FUNDS EXPENDED -

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☒ YES ☐ NO (If yes, give details on reverse side.)

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO (If yes, indicate items, quantity, and cost on reverse side.)

## INCENTIVES

IS THIS AN INCENTIVE CONTRACT  
IF YES, CHECK TYPE

☒ YES

☐ NO

☐ COST

☒ PERFORMANCE

☐ DELIVERY

NOTE:  
USE REVERSE SIDE FOR COMMENTS.  
FINAL REPORT MUST CONTAIN INCENTIVE EVALUATION.

## OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING

3. ☐ ABOVE AVERAGE

5. ☐ BELOW AVERAGE 7. ☐ UNSATISFACTORY

2. ☒ EXCELLENT

4. ☐ AVERAGE

6. ☐ BARELY ADEQUATE

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

## RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING  
SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER (Specify)

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT PUT COMMENTS ON REVERSE IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR

15 March 1965

SIGNATURE OF INSPECTOR

25X1A

DIVISION

PDS

INSPECTOR'S EXTENSION

SIGNATURE OF APPROVER

FORM  
10-64

1897

USE  
PREVIOUS  
EDITION

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NARRATIVE REPORT

☒ INTERIM

☐ FINAL

Monthly inspection reports have been received on schedule.

A meeting was held 15 March 1965 at the contractor's facilities for the purpose of reviewing progress and discussing specifications for the sine-wave filters, which are being made by NPIC's Exploratory Development Laboratory.

25X1A [redacted] and  
25X1A the sine-wave filters which were delivered by Mr. [redacted] It was  
decided that subsequent filters would be made on film (as opposed  
to glass plates) and that modulations in three of four densities  
should be produced to provide alternatives for final decisions.

25X1A The EDL will continue its work on the filters and will periodically supply trial samples to [redacted]. The final group of filters is to be furnished with information on frequency, modulation, characteristic curve, etc., and is to be delivered at the end of the contractor's program.

The project monitor reviewed viewer equipment and developments for which the sine-wave testing equipment will be used to measure optical performance. The testing equipment's target will be placed in a viewer's film plane. It will have a maximum thickness of 2 cm; this might offer some physical problems with, for instance, the Richardson viewer whose tolerances in this area are severely limited by glass platens. Another problem anticipated with microscope-type viewing instruments, which are not specifically included in the scope of the present contract and which might require a modified testing device or adapter to be built as part of a follow-on contract.

25X1A [redacted] has chosen to attempt making the special 1020 1/mm sine-wave targets which, as the contract states, were to be GFE. At the time of contract negotiations, it was felt that a GFE stipulation would relieve the contractor of otherwise rhetorical performance standards (see 5 January 1965 Inspection Report, third paragraph of the discussion). The alternative of making their own targets was discussed, and it was believed advisable to treat procurement of targets -- from either [redacted] or any other source -- as a separate, fixed-fee action.

25X1A Although we have not officially committed ourselves, we have encouraged [redacted] effort at least up to the point of proving that they will or will not be able to meet specifications.  
25X1A [redacted] is absorbing this preliminary experimental work as part of its work on the testing equipment.

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**CONTRACT INSPECTION REPORT (Contd)**

A 13-bar target, however, is required for the sine-wave testing equipment: specifications are not severe since only the first harmonic of the 13 line pairs will be used. Periodicity is the only binding characteristic, although contrast must be known.

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Since these characteristics can be far less precise than those which [redacted] aims toward in its program, [redacted] has the capability of producing the 13-bar target. The company has recently successfully achieved the 600/ 1/mm target and is now involved in perfecting special oil emersion techniques for the 1200 1/mm targets. Pending a progress report from the project monitor on [redacted] current work as well as a report (within the month) from [redacted] on the relative success or failure of their effort, we will take action in the appropriate direction.

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